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(51) INT CL⁵

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(56) Documents Cited

GB 2247259 A GB 2134942 A GB 2097438 A
GB 2025763 A US 5133378 A

(58) Field of Search

UK CL (Edition L) E1D DF135 DF155 DF157 DF158
DF191 DF196 DGS
INT CL⁵ E04H

(54) Foldable shelter for weather protection

(57) A structure intended in particular as weather protection for football supporters; it comprises a collapsible framework (10) including a seat (26) and a protective cover (12) for overlying the framework. Legs (22 and 24) pivot about block (34) and are braced by seat (26); ground-engaging base (38) pivots about leg (24), and in co-operation with frame (16) pivotable about upright (20) serves to hold cover (12) taut.

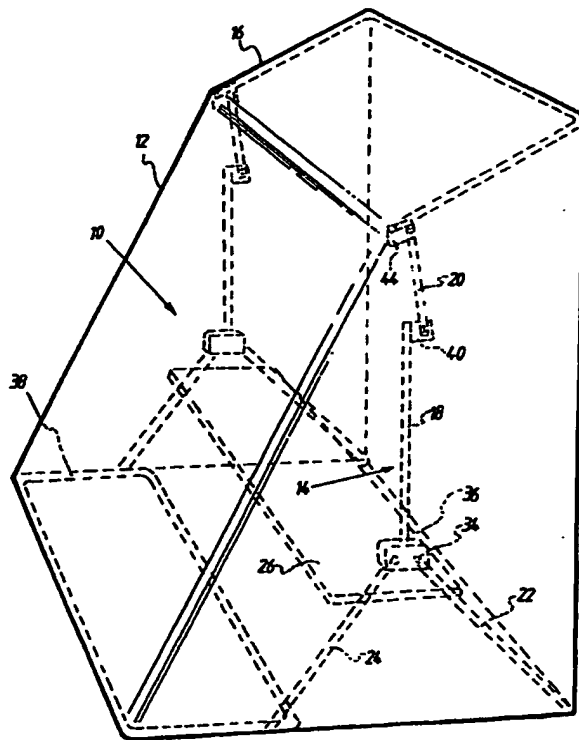


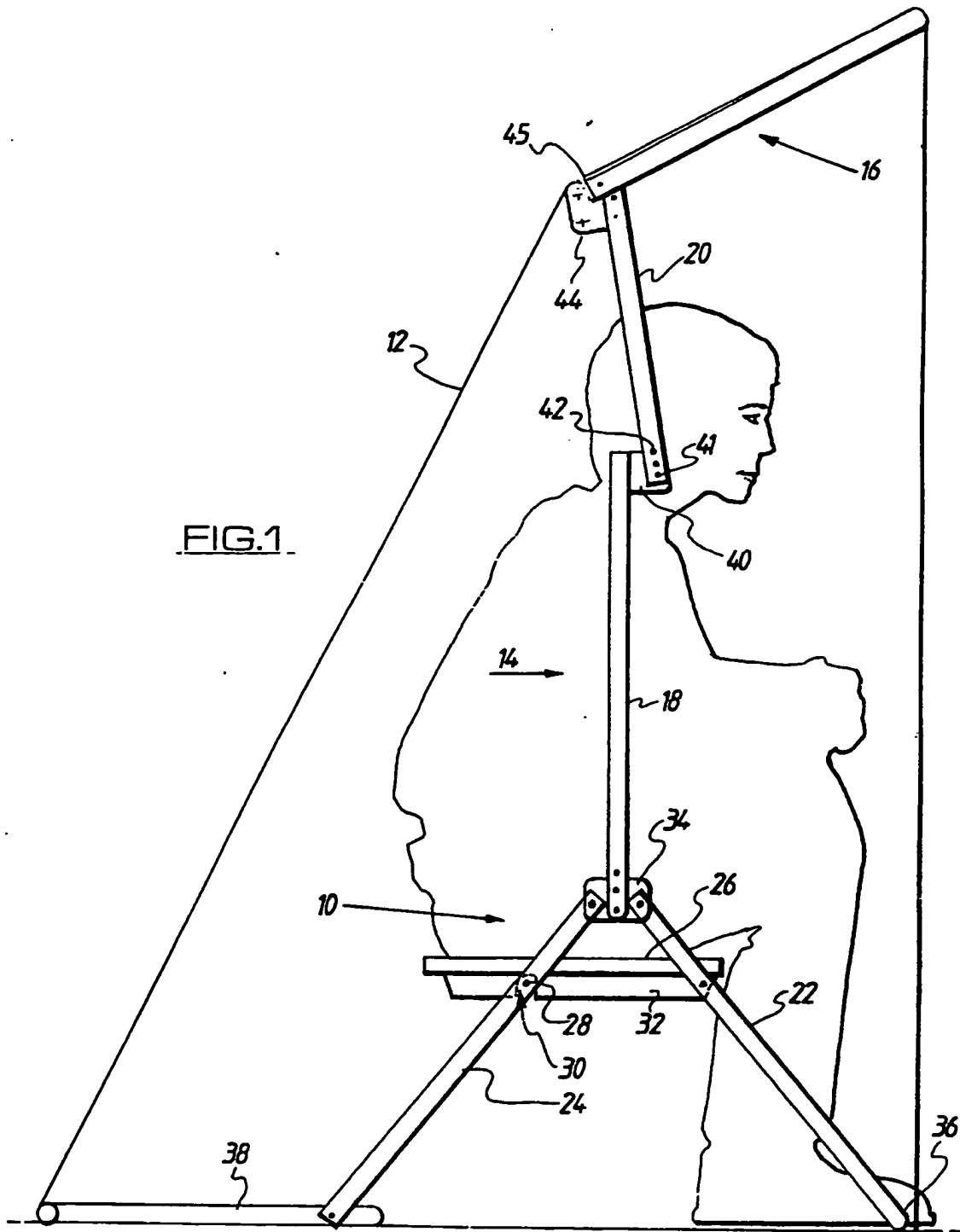
FIG. 2

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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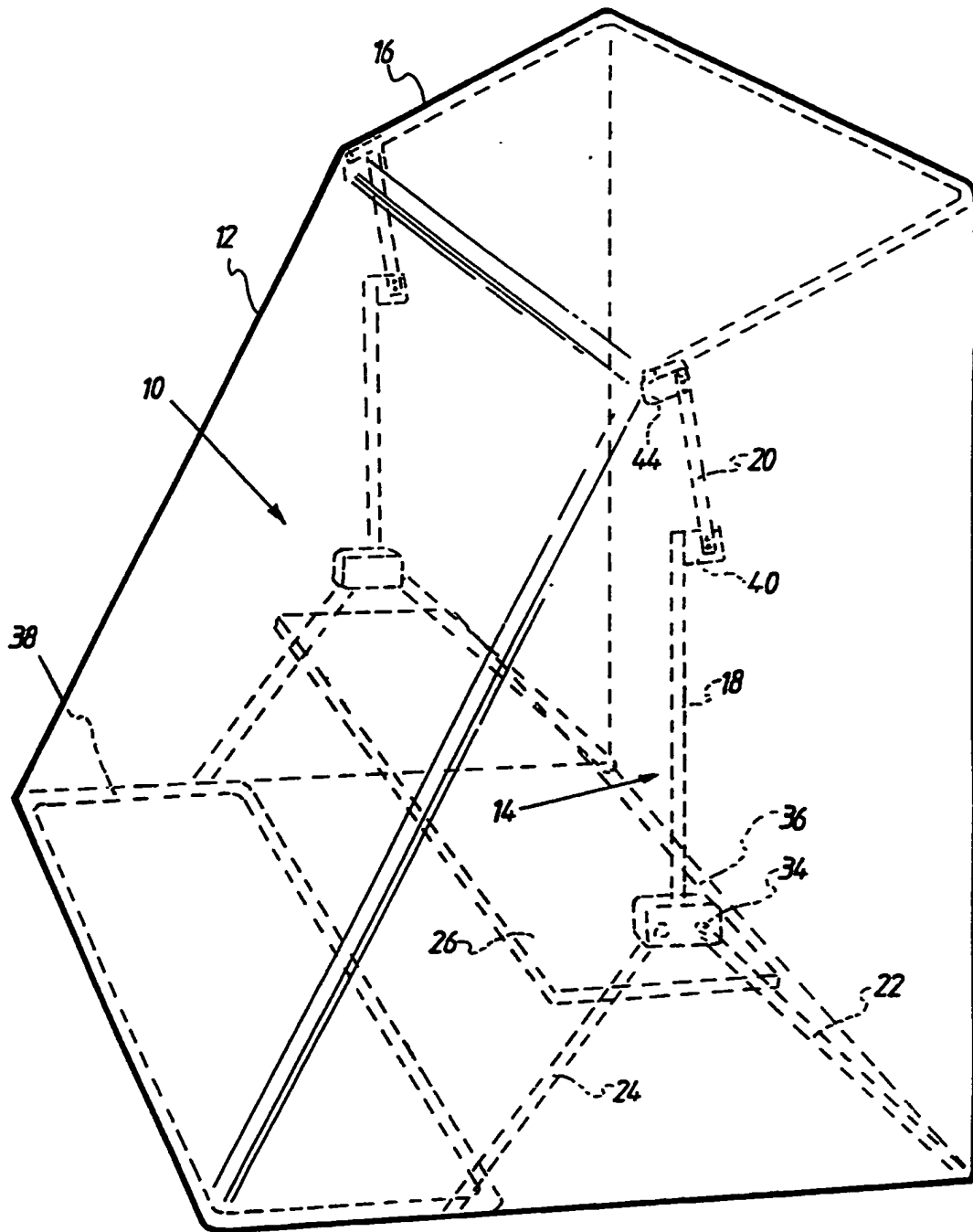


FIG. 2

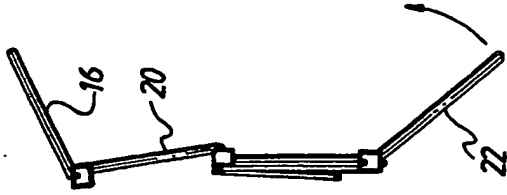


FIG. 5

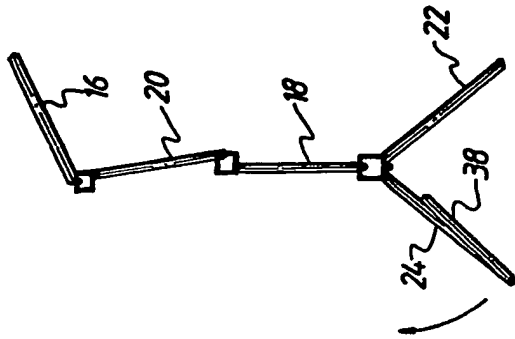


FIG. 4

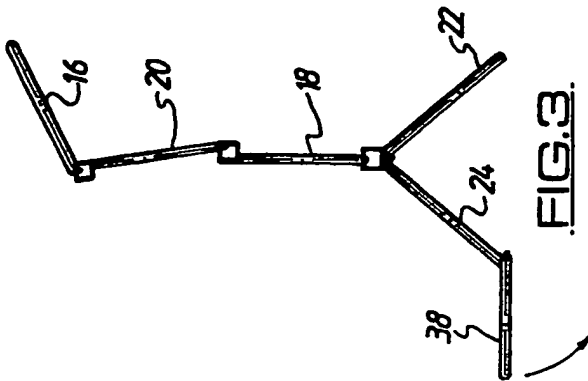


FIG. 3

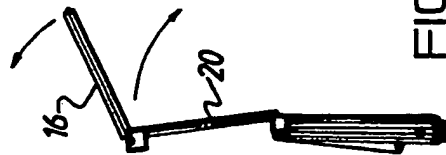


FIG. 6

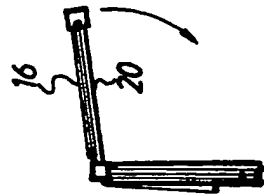


FIG. 7



FIG. 8

Weather protection

The invention relates to weather protection, in particular for football supporters and, for example, for spectators of other sports.

5 Football spectators, especially the club officials involved, generally watch the game from a so-called dug-out which provides a seat and a canopy to give at least some protection in inclement weather conditions. The invention has
10 for its object to provide what may be termed a portable dug-out for use by individual supporters.

 According to the invention, there is provided a portable structure comprising a collapsible framework including a seat and a canopy for said
15 framework providing a protective cover for an occupant of said seat. The seat will preferably extend substantially across the width of the framework. The framework may include upstanding
20 side frame struts supporting an overlying canopy element, the lower ends of said side frame struts being pivotally connected to forwardly and rearwardly sloping legs, the seat being pivotally connected to one of said legs and capable of being connected to the other of said legs so that in the
25 erected condition of the framework the seat braces

the legs together. The legs which slope forwardly from the lower ends of the side frame struts will preferably be formed as the parallel side lengths of a U-shaped frame element, the horizontal
5 connecting length being arranged to rest on the ground at the front of the apparatus. The lower ends of the legs which slope rearwardly from the lower ends of the side frame struts will preferably be pivotally connected to a basal member for lying
10 flat on the ground at the rear of the apparatus and serving the purpose of extending the weather protective cover to the rear of a person or persons sitting on the seat. Said basal member may be constituted by an endless length of material
15 defining a rectangular outline shape.

The upstanding side frame struts supporting the overlying canopy element may each be constituted by a pair of strut elements, these preferably being pivotally connected together. The overlying canopy
20 element may be constituted by a length of material defining a rectangular outline shape, and will preferably be pivotally connected to the upper ends of the side frame struts.

In order that the invention may be fully
25 understood and readily carried into effect, the same will now be described, by way of example only,

with reference to the accompanying drawings, of which:-

Figure 1 is a semi-diagrammatic view of portable weather protective apparatus embodying the invention,

Figure 2 is a perspective view of the apparatus, and

Figures 3 to 8 are diagrammatic views which illustrate successive steps in the folding of the framework for convenient transportation and stowage.

Referring now to Figures 1 and 2 of the drawings, the portable weather protection apparatus there illustrated includes a collapsible framework generally indicated 10 with a weather protective cover 12 for overlying the framework in its erected condition. The protective cover essentially comprises a sheet which overlies the head of a person seated within the apparatus and extends downwardly and rearwardly to ground level, together with other sheets formed integrally therewith and constituting end walls.

The framework includes upstanding side frame struts, generally indicated 14, supporting an overlying canopy element generally indicated 16, the side frame struts each being constituted by a

pair of elements 18 and 20 pivotally connected together.

5 The lower ends of the elements 18 of the side frame struts are pivotally connected to respective forwardly and rearwardly sloping legs 22 and 24. A seat 26 is pivotally connected at its opposite ends to the respective leg 22 and capable of being connected to the respective leg 24 by means of a pin 28 projecting from the leg and capable of being
10 engaged in a slot 30 opening from the underside of the respective one of a pair of angle members 32 which carry the seat 26 (see Figure 1). In the erected condition of the framework in which it is shown in Figures 1 and 2, the seat braces the legs
15 together.

The lower ends of the elements 18 of the side frame struts are provided with respective brackets 34 to which the respective forwardly and rearwardly sloping legs 22 and 24 are pivotally connected. In
20 their operative positions in which they are braced together by the seat, the legs bear against respective abutment surfaces formed on the brackets. The brackets are thus stabilised in position and the side frame struts extend
25 vertically upwards.

The legs 22 which slope forwardly from the lower ends of the elements 18 of the side frame struts are formed as the parallel side lengths of a U-shaped frame element, the horizontal connecting length 36 being arranged to rest on the ground at the front of the apparatus. The lower ends of the legs 24 on the other hand are pivotally connected to a basal member, generally indicated 38, which is constituted by an endless length of metal tube defining a rectangular outline shape. When the apparatus is in use, the basal member 38 lies flat on the ground at the rear of the apparatus and serves the purpose of extending the weather protective cover 12 to the rear of a person or persons sitting on the seat.

The upper ends of the elements 18 of the side frame struts are provided with respective brackets 40 to which the lower ends of the respective elements 20 are pivotally connected at 41. Respective removable pins 42, which can be located in aligned holes in the elements 20 and brackets 40, are provided to locate each element in its upstanding operative condition.

The upper ends of the elements 20 of the side frame struts are provided with respective rearwardly projecting brackets 44 to which the overlying

canopy element 16 is pivotally connected at 45. Said canopy element is constituted by a U-shaped member made of metal tube, the parallel side lengths of the U being pivotally connected to the brackets 44 and the horizontal connecting length being located in a pocket (not shown) formed at the front of the overlying portion of the cover 12. From their pivotal connections to the brackets 44 the parallel side lengths of the U-shaped canopy member project upwardly and forwardly; their abutment against the upper ends of the elements 20 of the side frame struts determines the angle at which they are inclined. The attachment of the snug fitting cover 12 to the framework fixes the canopy member in position. It will be understood that it is the shape of the basal member 38 and the shape of the overlying canopy element 16, together with the spacing apart of these two elements and of the lower ends of the legs 22 which defines the overall shape of the cover.

Referring now to Figures 3 to 8, these views illustrate how the framework can be folded for convenient transportation and stowage, when the weather protective cover has been removed. The folding, which can best be effected with the framework lying on its side, can start with the

folding of the basal member 38 to a position between the legs 24 and the folding of the seat to a position between the legs 22 (see Figures 3 and 4). The legs 22 and 24 can then be pivoted to lie on opposite sides of the elements 18 of the side frame struts (see Figures 4 and 5). The final steps in the folding of the framework comprises the folding of the canopy element 16 and, following the removal of the pins 42, the folding of the elements 18 and 20 of the side frame struts upon themselves (see Figures 6, 7 and 8). The folded framework is very compact and can be stowed away, together with the folded cover 12, in a car boot, for example.

Various modifications may be made. For example, although the apparatus can be set upon hard standing, provision may be made for ground contacting portions of the framework to be pegged to the ground when the apparatus is set up on soft earth. The apparatus may be of any convenient length to seat one person or two or more persons. The weather protective cover may be made of any suitable waterproof material; if made of a non-transparent material it may be formed with transparent areas acting as windows in end walls of the cover.

CLAIMS:

1. A portable structure comprising a collapsible framework including a seat and a canopy for said framework providing a protective cover for an occupant of said seat.
5
2. A portable structure according to claim 1, in which the seat extends substantially across the width of the framework.
3. A portable structure according to either one of the preceding claims, in which the framework includes upstanding side frame struts supporting an overlying canopy element, the lower ends of said side frame struts being pivotally connected to forwardly and rearwardly sloping legs and the seat being pivotally connected to one of said legs and capable of being connected to the other of said legs so that in the erected condition of the framework the seat braces the legs together.
10
15
4. A portable structure according to claim 3, in which the legs which slope forwardly from the lower ends of the side frame struts are formed as the parallel side lengths of a U-shaped frame
20

element, the horizontal connecting length being arranged to rest on the ground at the front of the apparatus.

5. A portable structure according to either one
5 of claims 3 and 4, in which the lower ends of the legs which slope rearwardly from the lower ends of the side frame struts are pivotally connected to a basal member for lying flat on the ground at the rear of the apparatus and serving the purpose of
10 extending the weather protective cover to the rear of a person or persons sitting on the seat.

6. A portable structure according to claim 5,
in which the basal member is constituted by an endless length of material defining a rectangular
15 outline shape.

7. A portable structure according to any one of claims 3 to 6, in which the upstanding side frame struts supporting the overlying canopy element are each constituted by a pair of strut elements
20 pivotally connected together.

8. A portable structure according to any one of claims 3 to 7, in which the overlying canopy

element is constituted by a length of material defining a rectangular outline shape, and is pivotally connected to the upper ends of the side frame struts.

- 5 9. A portable structure constructed, arranged and adapted to be used substantially as hereinbefore described with reference to and as illustrated by the accompanying drawings.

Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

- 11 -

Application number
 GB 9313314.8

Relevant Technical fields

(i) UK CI (Edition L) E1D DGS, DF155, DF157, DF158,
 DF135, DF191, DF196

(ii) Int CI (Edition 5) E04H

Search Examiner

J D CANTRELL

Databases (see over)

(i) UK Patent Office

(ii)

Date of Search

14 SEPTEMBER 1993

Documents considered relevant following a search in respect of claims 1-9

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2247259 A (ISMAY)	1, 2
X	GB 2134942 A (SMITH)	1, 2
X	GB 2097438 A (O'DWYER)	1
X	GB 2025763 A (MYERS)	1, 2
P, X	US 5133378 (TANASYCHUK)	1, 2

Category	Identity of document and relevant passages -12-	Relevant to claim(s)

Categories of documents

X: Document indicating lack of novelty or of inventive step.

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P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

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